

SEQUENCE LISTING:

SEQ ID NO. 1:

Hbmog1.Seq Length: 672 October 23, 1997 16:35 Type: N Check: 457

1 GTCCTTCCTC CTCCACCCAG ACCTCACTGC TCAGATCCCC TTGCGCCA ACT  
51 GGGACATCTT CCGACATGGC CTGGATGCTG TTGCTCATCT TGATCATGGT  
101 CCATCCAGGA TCCTGTGCTC TCTGGGTGTC CCAGCCCCCT GAGATT CGTA  
151 CCCTGGAAGG ATCCTCTGCC TTCCCTGCCCT GCTCCTCAA TGCCAGCCAA  
201 GGGAGACTGG CCATTGGCTC CGTCACGTGG TTCCGAGATG AGGTGGTTCC  
251 AGGGAAAGGAG GTGAGGAATG GAACCCCAGA GTTCAGGGC GCCTGGCCC  
301 CACTTGCTTC TTCCCGTTTC CTCCATGACC ACCAGGCTGA GCTGCACATC  
351 CGGGACGTGC GAGGCCATGA CGCCAGCATC TACGTGTGCA GAGTGGAGGT  
401 GCTGGGCCCTT GGTGTCGGGA CAGGGAATGG GACTCGGCTG GTGGTGGAGA  
451 AAGAACATCC TCAGCTAGGG GCTGGTACAG TCCTCCTCCT TCGGGCTGGA  
501 TTCTATGCTG TCAGCTTCT CTCTGTGGCC GTGGGCAGCA CCGTCTATT  
551 CCAGGGCAAA TGCCACTGTC ACATGGGAAC ACACGCCAC TCCTCAGATG  
601 GGCCCCGAGG AGTGATTCCA GAGCCAGAT GTCCCTAGTC CTCTCAAAA  
651 GACCCCAATA AATCTGCCCT AC

Translation goes from 66 to 635

SEQ ID NO 2:

Hbmog2.Seq Length: 890 October 23, 1997 16:25 Type: N Check:  
9826 ..

1 GTCCTTCCTC CTCCACCCAG ACCTCACTGC TCAGATCCCC TTGCGCAA  
51 GGGACATCTT CCGACATGGC CTGGATGCTG TTGCTCATCT TGATCATGGT  
101 CCATCCAGGA TCCTGTGCTC TCTGGGTGTC CCAGCCCCCT GAGATTGTA  
151 CCCTGGAAGG ATCCTCTGCC TTCCTGCCCT GCTCCTTCAA TGCCAGCCAA  
201 GGGAGACTGG CCATTGGCTC CGTCACGTGG TTCCGAGATG AGGTGGTTCC  
251 AGGGAAGGAG GTGAGGAATG GAACCCCAGA GTTCAGGGC GCCTGGCCC  
301 CACTTGCTTC TTCCCGTTTC CTCCATGACC ACCAGGCTGA GCTGCACATC  
351 CGGGACGTGC GAGGCCATGA CGCCAGCATC TACGTGTGCA GAGTGGAGGT  
401 GCTGGGCCTT GGTGTCGGGA CAGGGAAATGG GACTCGGCTG GTGGTGGAGA  
451 AAGAACATCC TCAGCTAGGG GCTGGTACAG TCCTCCTCCT TCGGGCTGGA  
501 TTCTATGCTG TCAGCTTCT CTCTGTGGCC GTGGGCAGCA CCGTCTATTAA  
551 CCAGGGCAAA TATGCCAAAT CTACTCTCTC CGGATTCCCC CAACTCTGAA  
601 CTTTCCCTTC CACCAAGGTCT GACCTGGAAA GGTCCAAGAA GGCAAGCTGCC  
651 GGCTGTGGTC CCAGCGCCCC TCCCACCAACC ATGTGGGAGC TCAGCACATC  
701 TGCTTCCCCC AGTCCCAGGA GGCTGAGCCT GATTGTCCCTG AGAAATGGGA  
751 AGGATCAGAT ATGACTCCTC CTTGGCAACT GCCCTTCCT GCCAGGCCCA  
801 CACATACCCCT CTTCTGGCTG TTAGGGGAGC TTGGGTCCCT GAACACTGTC  
851 ATTCAACCCAA CAAATTACTA TTTGACCCCA GAGTGGGTGG

Translation goes from 66 to 598

SEQ ID NO 3:

Hbmog3.Seq Length: 835 October 23, 1997 16:26 Type: N Check:  
8316 ..

1 GTCCTTCCTC CTCCACCCAG ACCTCACTGC TCAGATCCCC TTGCGCCA ACT  
51 GGGACATCTT CCGACATGGC CTGGATGCTG TTGCTCATCT TGATCATGGT  
101 CCATCCAGGA TCCTGTGCTC TCTGGGTGTC CCAGCCCCCT GAGATTGTA  
151 CCCTGGAAGG ATCCTCTGCC TTCCTGCCCT GCTCCTCAA TGCCAGCCAA  
201 GGGAGACTGG CCATTGGCTC CGTCACGTGG TTCCGAGATG AGGTGGTTCC  
251 AGGGAAAGGAG GTGAGGAATG GAACCCCAGA GTTCAGGGC GCCTGGCCC  
301 CACTTGCTTC TTCCCCTTTC CTCCATGACC ACCAGGCTGA GCTGCACATC  
351 CGGGACGTGC GAGGCCATGA CGCCAGCATC TACGTGTGCA GAGTGGAGGT  
401 GCTGGGCCCTT GGTGTCGGGA CAGGGAAATGG GACTCGGCTG GTGGTGGAGA  
451 AAGAACATCC TCAGCTAGGG GCTGGTACAG TCCTCCTCCT TCGGGCTGGA  
501 TTCTATGCTG TCAGCTTTCT CTCTGTGGCC GTGGGCAGCA CCGTCTATT  
551 CCAGGGCAAA TGTCTGACCT GGAAAGGTCC AAGAAGGCAG CTGCCGGCTG  
601 TGGTCCCAGC GCCCCTCCCA CCACCATGTG GGAGCTCAGC ACATCTGCTT  
651 CCCCCAGTCC CAGGAGGCTG AGCCTGATTG TCCTGAGAAA TGGGAAGGAT  
701 CAGATATGAC TCCTCCTTGG CAACTGCCCT TTCCCTGCCAG GCCCACACAT  
751 ACCCTCTTCT GGCTGTTAGG GGAGCTTGGG TCCCTGAACA CTGTCATTCA  
801 CCCAACAAAT TACTATTG ACCCCAGAGTG GGTGG

Translation goes from 66 to 668

SEQ. ID NO. 4:

Hbmog1.pep Length: 190 October 23, 1997 16:34 Type: P Check:  
3831 ..

1 MAWMLLLILI MVHPGSCALW VSQPPEIRTL EGSSAFLPCS FNASQGRLAI  
51 GSVTWFRDEV VPGKEVRNGT PEFRGRLAPL ASSRFLHDHQ AELHIRDVRG  
101 HDASIYVCRV EVLGLGVGTG NGTRLVVEKE HPQLGAGTVL LLRAGFYAVS  
151 FLSVAVGSTV YYQGKCHCHM GTHCHSSDGP RGVIPEPRCP

SEQ ID NO 3:

Hbmog3.Seq Length: 835 October 23, 1997 16:26 Type: N Check:  
8316 ..

1 GTCCTTCCTC CTCCACCCAG ACCTCACTGC TCAGATCCCC TTGCGCCA ACT  
51 GGGACATCTT CCGACATGGC CTGGATGCTG TTGCTCATCT TGATCATGGT  
101 CCATCCAGGA TCCTGTGCTC TCTGGGTGTC CCAGCCCCCT GAGATTGTA  
151 CCCTGGAAGG ATCCTCTGCC TTCCTGCCCT GCTCCTCAA TGCCAGCCAA  
201 GGGAGACTGG CCATTGGCTC CGTCACGTGG TTCCGAGATG AGGTGGTTCC  
251 AGGGAAAGGAG GTGAGGAATG GAACCCCAGA GTTCAGGGC GCCTGGCCC  
301 CACTTGCTTC TTCCCGTTTC CTCCATGACC ACCAGGCTGA GCTGCACATC  
351 CGGGACGTGC GAGGCCATGA CGCCAGCATC TACGTGTGCA GAGTGGAGGT  
401 GCTGGGCCTT GGTGTCGGGA CAGGGAAATGG GACTCGGCTG GTGGTGGAGA  
451 AAGAACATCC TCAGCTAGGG GCTGGTACAG TCCTCCTCCT TCGGGCTGGA  
501 TTCTATGCTG TCAGCTTCT CTCTGTGGCC GTGGGCAGCA CCGTCTATTAA  
551 CCAGGGCAAA TGTCTGACCT GGAAAGGTCC AAGAAGGCAG CTGCCGGCTG  
601 TGGTCCCAGC GCCCCTCCCA CCACCATGTG GGAGCTCAGC ACATCTGCTT  
651 CCCCCAGTCC CAGGAGGCTG AGCCTGATTG TCCTGAGAAA TGGGAAGGAT  
701 CAGATATGAC TCCTCCTTGG CAACTGCCCT TTCCCTGCCAG GCCCACACAT  
751 ACCCTCTTCT GGCTGTTAGG GGAGCTTGGG TCCCTGAACA CTGTCATTCA  
801 CCCAACAAAT TACTATTGA CCCCAGAGTG GGTGG

Translation goes from 66 to 668

SEQ. ID NO. 4:

Hbmog1.pep Length: 190 October 23, 1997 16:34 Type: P Check:  
3831 ..

1 MAWMLLLILI MVHPGSCALW VSQPPEIRTL EGSSAFLPCS FNASQGRLAI  
51 GSVTWFRDEV VPGKEVRNGT PEFRGRLAPL ASSRFLHDHQ AELHIRDVRG  
101 HDASIYVCRV EVLGLGVGTG NGTRLVVEKE HPQLGAGTVL LLRAGFYAVS  
151 FLSVAVGSTV YYQGKCHCHM GTHCHSSDGP RGVIPEPRCP

SEQ ID NO 3:

Hbmog3.Seq Length: 835 October 23, 1997 16:26 Type: N Check:  
8316 ..

1 . GTCCTTCCTC CTCCACCCAG ACCTCACTGC TCAGATCCCC TTGCCAACT  
51 GGGACATCTT CCGACATGGC CTGGATGCTG TTGCTCATCT TGATCATGGT  
101 CCATCCAGGA TCCTGTGCTC TCTGGGTGTC CCAGCCCCCT GAGATTGTA  
151 CCCTGGAAGG ATCCTCTGCC TTCCCTGCCCT GCTCCTTCAA TGCCAGCCAA  
201 GGGAGACTGG CCATTGGCTC CGTCACGTGG TTCCGAGATG AGGTGGTTCC  
251 AGGGAAGGAG GTGAGGAATG GAACCCCAGA GTTCAGGGGC GCCTGGCCC  
301 CACTTGCTTC TTCCCCTTTC CTCCATGACC ACCAGGCTGA GCTGCACATC  
351 CGGGACGTGC GAGGCCATGA CGCCAGCATH TACGTGTGCA GAGTGGAGGT  
401 GCTGGGCCTT GGTGTCGGGA CAGGGAAATGG GACTCGGCTG GTGGTGGAGA  
451 AAGAACATCC TCAGCTAGGG GCTGGTACAG TCCTCCTCCT TCGGGCTGGA  
501 TTCTATGCTG TCAGCTTTCT CTCTGTGGCC GTGGGCAGCA CCGTCTATT  
551 CCAGGGCAAA TGTCTGACCT GGAAAGGTCC AAGAAGGCAG CTGCCGGCTG  
601 TGGTCCCAGC GCCCCTCCCA CCACCATGTG GGAGCTCAGC ACATCTGCTT  
651 CCCCCAGTCC CAGGAGGCTG AGCCTGATTG TCCTGAGAAA TGGGAAGGAT  
701 CAGATATGAC TCCTCCTTGG CAACTGCCCT TTCCCTGCCAG GCCCACACAT  
751 ACCCTCTTCT GGCTGTTAGG GGAGCTTGGG TCCCTGAACA CTGTCATTCA  
801 CCCAACAAAT TACTATTGAGA CCCCAGAGTG GGTGG

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Hbmog1.pep Length: 190 October 23, 1997 16:34 Type: P Check:  
3831 ..

1 MAWMLLLIL . MVHPGSCALW VSQPPEIRTL EGSSAFLPCS FNASQGRLAI  
51 GSVTWFRDEV VPGKEVRNGT PEFRGRLAPL ASSRFLHDHQ AELHIRDVRG  
101 HDASIYVCRV EVLGLGVGTG NGTRLVVEKE HPQLGAGTVL LLRAGFYAVS  
151 FLSVAVGSTV YYQGKCHCHM GTHCHSSDGP RGVIPEPRCP

SEQ ID NO 5:

Hbmog2.pep Length: 177 October 23, 1997 16:33 Type: P Check:  
3403 ..

1 MAWMLLLILMVHPGSCALW VSQPPEIRTL EGSSAFLPCS FNASQGRLAI  
51 GSVTWFRDEV VPGKEVRNGT PEFRGRLAPL ASSRFLHDHQ AELHIRDVRG  
101 HDASIYVCRV EVLGLGVGTG NGTRLVVEKE HPQLGAGTVL LLRAGFYAVS  
151 FLSVAVGSTV YYQGKYAKST LSGFPQL

SEQ ID NO 6:

Hbmog3.pep Length: 201 October 23, 1997 16:31 Type: P Check:  
6803 ..

1 MAWMLLLILMVHPGSCALW VSQPPEIRTL EGSSAFLPCS FNASQGRLAI  
51 GSVTWFRDEV VPGKEVRNGT PEFRGRLAPL ASSRFLHDHQ AELHIRDVRG  
101 HDASIYVCRV EVLGLGVGTG NGTRLVVEKE HPQLGAGTVL LLRAGFYAVS  
151 FLSVAVGSTV YYQGKCLTWK GPRRQLPAVV PAPLPPPCGS SAHLLPPVPG  
201 G

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